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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,753	10/29/2003	Atsushi Tofuku	110182.01	5746
25944	7590	01/12/2006	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			BLACKWELL RUDASIL, GWENDOLYN A	
			ART UNIT	PAPER NUMBER
			1775	
DATE MAILED: 01/12/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/694,753

Applicant(s)

TOFUKU ET AL.

Examiner

Gwendolyn Blackwell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/910,883.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 14, 2005 has been entered.

Claim Rejections - 35 USC § 112

2. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-5 are indefinite as the new claim limitation that "one or more of alkyl groups selected from long-chain alkyl groups containing 7 to 30 carbon atoms remain in the transparent coat layer" is not a positive recitation to the claims. The claims are drawn to an article. The new claim limitation is taken as a process limitation. The claims as presently written already have the specified alkyl groups present in the coating. As the new limitation implies a further processing step, is this claim drawn to an intermediate or final product? Clarification is required.

If Applicant is claiming that a residual amount of alkyl still remains in the layer after processing, it is suggested to amend claim 1 in part to read "...a binder matrix of silicon oxide including one or more alkyl groups selected from long chain alkyl groups containing 7 to 30 carbon atoms; wherein said alkyl groups are present in the transparent coat layer of the transparent conductive layered structure."

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In order to further prosecution, claims 1-5 are taken as an article with a two layered film composed of a transparent conductive layer and a transparent coat layer wherein the transparent coat layer is comprised of a binder matrix of silicon oxide including one or more alkyl groups selected from long chain alkyl groups containing 7-30 carbon atoms.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent no. 5,853,869, Adachi et al in view of United States Patent Application Publication no. 2001/0024685, Boulton et al.

Adachi et al disclose a transparent conductive film with a silicate overcoat layer. The conductive film is comprised of fine particles of indium tin oxide (ITO), ruthenium dioxide, or

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rhodium oxide dispersed in a silicate matrix, (column 2, lines 26-61). The ITO particles have an average diameter of 50 nm or less, (columns 3-4, lines 66-6). Adachi et al do not specifically disclose the composition of the silicate overcoat layer.

Boulton et al disclose a protective coating comprised of a coating solution containing a silicon oxide coating precursor comprised of an alkyl having 1-20 carbon atoms, (page 2, sections 0018-0021).

Adachi et al and Boulton et al disclose analogous inventions related to display screens, comprised of a multiple layers formed on a substrate wherein the outer protective layer is based on a silicate. It would have been obvious to one skilled in the art to modify the overcoat layer of Adachi et al with the outer protective layer of Boulton et al to provide improved mechanical wear resistance to the underlying layers, (Boulton et al, page 4, sections 0034-0036).

6. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent no. 6,261,479, Yukinobu et al in view of United States Patent Application Publication no. 2001/0024685, Boulton et al.

Yukinobu et al disclose a multilayered structure comprised of a transparent substrate with a transparent electro conductive layer formed thereon and a transparent coat layer formed on the electro conductive layer. The electro conductive layer is composed of noble metal coated fine silver particles having an average particle diameter of from 1-100 nm, with the silver particles being surface coated with gold or platinum alone or a composite of gold and platinum and a binder matrix, (column 6, lines 24-33). Conductive fine particles such as tin oxide, antimony tin oxide, and indium tin oxide can also be added to the electro conductive layer, (column 9, lines 47-61). The transparent coat layer is formed of a silica sol, (column 12, lines 24-53). Yukinobu et al do not specifically disclose the composition of the silica sol.

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Boulton et al disclose a protective coating comprised of a coating solution containing a silicon oxide coating precursor comprised of an alkyl having 1-20 carbon atoms, (page 2, sections 0018-0021).

Yukinobu et al and Boulton et al disclose analogous inventions related to display screens, comprised of a multiple layers formed on a substrate wherein the outer protective layer is a silicon oxide based coating formed from alkyls. It would have been obvious to one skilled in the art to modify the transparent coat layer of Yukinobu et al with the outer protective layer of Boulton et al to provide improved mechanical wear resistance to the underlying layers, (Boulton et al, page 4, sections 0034-0036).

Response to Arguments

7. Applicant's arguments filed November 10, 2005 have been fully considered but they are not persuasive.

8. Applicant contends that Boulton (US 2001/0024685) does not remedy the shortcomings of Adachi (USPN 5,853,869) as the outer coating of Boulton is baked or fired which removes residual organic components from the overcoat.

This is not persuasive as the new claim limitation that "one or more of alkyl groups selected from long-chain alkyl groups containing 7 to 30 carbon atoms remain in the transparent coat layer" is not a positive recitation in the claims. The claims are drawn to an article comprised of at least two layers wherein the second layer is comprised of a binder matrix of silicon oxide including one or more types of alkyl groups selected from long chain alkyl groups containing 7-30 carbon atoms. There is nothing in the claims that mention that the coating is fired or baked. There is nothing in the claims that mention that the new claim limitation is what

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is left after a particular processing step has taken place. Furthermore, there is nothing in Boulton which states that a residual organic compound is not left in the final coating after heat treatment.

In this case, Adachi et al and Boulton et al disclose analogous inventions such as display screens, comprised of a multiple layers formed on a substrate wherein the outer protective layer is based on a silicate. It would have been obvious to one skilled in the art to modify the overcoat layer of Adachi et al with the outer protective layer of Boulton et al to provide improved mechanical wear resistance to the underlying layers, (Boulton et al, page 4, sections 0034-0036).

9. Applicant also contends that Boulton does not remedy the shortcomings of Yukinobu et al (USPN 6,261,479) as the outer coating of Boulton is fired which removes residual organic components from the overcoat and that one skilled in the art would not be motivated to combine Yukinobu et al and Boulton.

This is not persuasive as the new claim limitation that “one or more of alkyl groups selected from long-chain alkyl groups containing 7 to 30 carbon atoms remain in the transparent coat layer” is not a positive recitation in the claims. The claims are drawn to an article comprised of at least two layers wherein the second layer is comprised of a binder matrix of silicon oxide including one or more types of alkyl groups selected from long chain alkyl groups containing 7-30 carbon atoms. There is nothing in the claims that mention that the coating is fired or baked. There is nothing in the claims that mention that the new claim limitation is what is left after a particular processing step has taken place. Furthermore, there is nothing in Boulton which states that a residual organic compound is not left in the final coating after heat treatment.

In this case, Yukinobu et al and Boulton et al disclose analogous inventions such as display screens, comprised of a multiple layers formed on a substrate wherein the outer protective layer is a silicon oxide based coating formed from alkyls. It would have been obvious

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to one skilled in the art to modify the transparent coat layer of Yukinobu et al with the outer protective layer of Boulton et al to provide improved mechanical wear resistance to the underlying layers, (Boulton et al, page 4, sections 0034-0036).

10. For the reasons set forth above, the rejections of pending claims 1-5 stand with regards to the 35 USC 103(a) rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn Blackwell whose telephone number is (571) 272-1533. The examiner can normally be reached on Monday - Thursday; 5:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gwendolyn Blackwell
Examiner
Art Unit 1775



GAB



DEBORAH JONES
SUPERVISORY PATENT EXAMINER